

Appendix Table 1-23
Subject matter preparation of public middle and high school mathematics and science teachers, by minority enrollment and school poverty level: Academic years 2003–04, 2007–08, and 2011–12

(Percent distribution)

	Academic year 2003–04				Academic year 2007–08				Academic year 2011–12			
School characteristic	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d
Middle school												
Mathematics	53.5	3.9	37.5	5.1	64.3	1.6	30.6	3.4	66.7	0.7	28.3	4.3
Minority enrollment (%)												
0–5	72.9	0.2	25.2	1.7	66.5	0.0	32.6	1.0	68.6	0.5	28.8	2.1
> 5–45	49.6	0.8	44.2	5.5	67.9	0.4	29.1	2.6	65.3	0.5	31.9	2.3
> 45	51.5	8.6	34.2	5.7	60.9	2.9	31.6	4.6	67.7	0.9	25.2	6.2
School poverty level (%) ^e												
0–10	58.2	0.4	38.4	3.0	75.7	3.5	20.8	0.0	75.1	1.6	22.1	1.2
> 10–50	56.4	1.3	38.4	3.8	61.0	0.4	35.4	3.2	69.0	0.1	26.4	4.5
> 50	47.4	9.3	35.5	7.8	64.9	2.6	27.8	4.7	63.0	1.0	31.3	4.8
Science	67.0	na	29.2	3.8	69.7	na	27.0	3.3	74.2	na	23.4	2.4
Minority enrollment (%)												
0–5	64.3	na	33.8	1.9	70.8	na	28.9	0.2	78.6	na	19.0	2.4
> 5–45	65.4	na	30.9	3.8	70.8	na	27.4	1.8	70.8	na	27.6	1.6
> 45	70.1	na	25.4	4.5	68.1	na	26.2	5.7	77.1	na	19.7	3.2

	Academic year 2003–04				Academic year 2007–08				Academic year 2011–12			
School characteristic	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d
School poverty level (%) ^e												
0–10	65.9	na	34.0	0.1	63.0	na	33.9	3.1	75.4	na	22.8	1.9
> 10–50	65.4	na	30.1	4.4	70.1	na	28.4	1.5	74.5	na	24.8	0.7
> 50	70.6	na	25.5	4.0	70.2	na	23.7	6.2	74.1	na	21.8	4.2
High school												
Mathematics	87.4	2.0	3.1	7.5	88.0	1.2	3.4	7.4	90.1	1.0	4.1	4.8
Minority enrollment (%)												
0–5	91.3	0.7	4.9	3.2	94.6	0.3	3.2	1.9	90.6	0.8	4.1	4.6
> 5–45	90.2	0.9	2.5	6.4	90.7	0.4	3.5	5.4	91.9	0.5	3.6	4.0
> 45	82.8	3.8	3.0	10.4	83.2	2.4	3.3	11.1	88.3	1.5	4.6	5.7
School poverty level (%) ^e												
0–10	92.2	0.4	3.0	4.4	93.8	0.1	2.7	3.5	95.1	1.1	1.9	1.9
> 10–50	87.5	2.6	3.1	6.8	89.1	1.1	3.2	6.6	91.2	0.5	4.0	4.3
> 50	82.9	1.8	3.3	12.0	81.5	2.5	4.0	12.0	87.2	1.5	4.9	6.3
Biology/life sciences	91.9	3.6	1.3	3.2	93.2	3.9	0.9	2.0	90.0	5.1	2.6	2.3
Minority enrollment (%)												
0–5	95.6	2.9	0.9	0.6	96.9	1.0	1.2	0.9	93.2	5.0	0.9	0.9
> 5–45	92.3	3.7	1.2	2.8	91.2	4.7	1.3	2.8	88.8	6.3	3.4	1.6

	Academic year 2003–04				Academic year 2007–08				Academic year 2011–12			
School characteristic	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d	In field ^a	Related field ^b	General education ^c	Other ^d
> 45	89.9	3.9	1.5	4.8	94.9	3.5	0.3	1.2	90.6	3.9	2.1	3.3
School poverty level (%) ^e												
0–10	94.8	3.9	0.8	0.4	97.5	0.8	0.4	1.4	97.0	0.5	1.3	1.3
> 10–50	92.4	3.0	1.4	3.2	92.0	4.8	1.0	2.1	89.2	6.3	3.0	1.5
> 50	87.8	5.4	1.6	5.3	92.6	4.3	1.1	1.9	88.0	5.4	2.6	4.1
Physical sciences	78.1	19.6	0.9	1.5	81.6	15.4	1.2	1.8	79.1	16.6	1.0	3.4
Minority enrollment (%)												
0–5	76.3	22.1	0.0	1.5	86.0	12.1	0.4	1.5	77.5	16.1	3.4	3.0
> 5–45	79.4	17.9	1.3	1.4	83.9	15.0	0.8	0.2	81.7	15.9	1.3	1.1
> 45	77.0	20.7	0.8	1.5	77.3	17.1	1.9	3.7	76.0	17.5	0.2	6.3
School poverty level (%) ^e												
0–10	85.9	11.7	1.1	1.3	87.5	10.6	1.9	0.0	89.1	10.6	0.4	0.0
> 10–50	75.3	22.3	1.0	1.4	82.7	14.2	0.9	2.2	81.5	16.0	1.0	1.5
> 50	76.7	22.1	0.6	0.7	75.2	21.3	1.2	2.3	71.1	19.7	1.0	8.2

na = not applicable.

^a Mathematics teachers with a degree and/or full certification in mathematics or mathematics education. Science teachers with a degree and/or full certification in science or science education.

^b Mathematics teachers with a degree and/or full certification in a field related to mathematics (e.g., science, science education, computer sciences, engineering). Science teachers with a degree and/or full certification in a field related to their teaching field (e.g., high school biology teachers with a degree and/or full certification in chemistry). This category is omitted for middle school science teachers because science teachers at this level are usually not distinguished by specific science fields such as physics, chemistry, or biology.

^c Mathematics and science teachers with a degree and/or full certification in general elementary, middle, or secondary education.



^d Mathematics and science teachers who did not have a degree or certification in their teaching field, a related field, or general elementary, middle or secondary education.

^e School poverty level is percentage of students in school qualifying for free/reduced-price lunch.

NOTE: Percentages may not add to total because of rounding.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2014) of 2003–04, 2007–08, and 2011–12 Schools and Staffing Survey, National Center for Education Statistics.

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